

Draft Meeting Notes
CALFED Bay-Delta Program Levee and Channel Technical Team
February 24, 1999 at 9:00 am in Room 1142 of the Resources Building

Attendance List:

Margit Aramburu, Delta Protection Commission
Bill Betchart, private consultant
John Cain, Natural Heritage Institute
Robert Clark, North Delta W. A. & Central Valley Flood Control Assoc.
Rob Cooke, CALFED (chair)
Gil Cosio, Murray Burns and Kienlen
Ray Costa, Kleinfelder Consulting Engineers
Les Harder, DWR Division of Engineering
Mike Hardesty, RD 2068 & Central Valley Flood Control Assoc.
Kenneth King, Consulting Engineer
Gwen Knittweis, CALFED
Gil Labrie, DCC Engineering
Ed Littrell, Dept of Fish and Game
Robert Mott, Consulting Economist
Chris Neudeck, Kjeldsen Sinnock and Neudeck Inc.
Michael Norris, DWR Central District (minutes)
Lynn O'Leary, Corps of Engineers / CALFED
Michael Ramsbotham, Corps of Engineers / CALFED
Curt Schmutte, DWR Central District
Stan Soliday, CALFED
Gary Tilkian, Metropolitan Water District of Southern California
Ralph Torres, DWR Division of Engineering
Tom Zuckerman, Central Delta Water Agency

Rob Cooke convened the meeting. The CALFED Long Term Levee Protection Plan report dated February of 1999 is ready for review. Rob made copies available and is taking comments on the report. The meeting minutes from 1-20-99 CALFED Levee and Channel meeting were reviewed and Rob wanted to add one item regarding bathymetric data that DWR Central District has made available. Also, Lynn O'Leary noted the proposed Corps bathymetric data collection effort has been submitted as a "directed action" and not a Category III grant as was noted in the minutes.

Tom Zuckerman had one comment on the CALFED report with respect to a statement that PL84-99 upgrades do not affect levee stability as far as seismicity is concerned. Tom thought that statement was a bit harsh when one considers all the work that has been done on the Delta levees. In particular, many levee systems have been widened and it was thought that the notion "wider is better" might hold true for seismicity. Les Harder noted that the design factor of safety for PL84-99 is 1.25 whereas other levee designs are with respect to freeboard. Tom said he's concerned that the advice he's getting contradicts what's in the report. Are the two in conflict? Les said it might not necessarily be conflict

as far as "wider is better" is concerned. However, if liquefiable material remains in the core of the levee, then making it wider won't help as far as liquefaction is concerned for a major quake.

Chris Neudeck discussed the correctness of the statement. Chris noted the hot item in the 1980s was the Hazard Mitigation Plan (HMP) upgrade and that's really not that much of a design improvement although it has saved the Delta millions of dollars.

Lynn stated that PL84-99 upgrade is neither a major increase in geometry or a major densification of the levee core. It doesn't help for liquefaction to add material to a loosely packed levee. Seismic improvements could require vibro-compaction techniques according to Lynn.

Chris suggested enhancing the paragraph to address some of Tom's concerns. Gil Cosio thought the report is intended to develop the seismicity as far as where it will happen and where is it concentrated. Gil actually thought it was going to turn out to be a lot worse than was presented in the report. Regardless, Tom thought that all the work that has been done in the Delta in the last 15 years has strengthened the levees for all purposes.

Chris asked Les Harder and Ralph Torres about the next level of review. Ralph said the next step is to get Dr. Norm Abrahamsom to review the report before it is passed on to the Idriss/Bolt team for their review.

Ray Costa said we've talked about static stability and liquefaction but what about erosion and seepage concerns? Rob mentioned that the Levee Program will be performing a "risk analysis."

Tom questioned the amplification factor of 1.6 and wondered whether a sensitivity analysis should be done. If it was determined that the factor is actually 1.0 or 1.2, what would be the consequence of this? Les said that the accelerations that are known for hard ground like the Bay Area are known but that doesn't apply to the soft soils and organics of the Delta. Les showed some overheads that included examples of "fat clays", "bay muds", and "unconsolidated peats" and how the amplification factor is determined for these. The factor increases when you go from peats to bay muds to fat clays on the order of "1" to almost "2" but the real amplification is an array of values. The results from the U.C. Davis investigation would push the amplification factor closer to "2" which Les is uncomfortable with although he can live with a 1.6 amplification factor. Les said a 1.4 or 1.8 amplification factor wouldn't change the overall analysis.

Les explained what "firm ground" is. There are about 5 different classifications from firm ground such as granite to softer ground and then there are organics at the bottom of the scale for which there is no data.

John Cain asked about how the line between Zone 1 and Zone 2 was determined and Les said it was based on half of the failures occurring on Sherman Island (Zone 1).

Rob discussed the next agenda item dealing with the Levee Program Cost Sharing. Rob reviewed local cost sharing as further outlined in a two-page handout. The locals would end up paying 10 percent minus the LERRDS (Lands/Easements/Relocations/Right of Ways/Disposal Areas) and the LERRDS could end up being about 9.2 percent. Gil and Chris thought this was an improvement over the version previously proposed and this puts us back on track. Rob thought a state statute prevented the Reclamation Board from contributing more than 25 percent. Curt Schmutte revisited the LERRDS issue. It hasn't been the case that the locals want to be reimbursed for easements and he wondered what happens if they suddenly are offered monies. Chris thought there could be a problem with "recordable" easements. Curt thought an inability from the locals to cost-share could prevent the project from moving on.

Chris discussed not giving up on monies available from FEMA even though they have been difficult to obtain. Gil discussed the possibility of the districts getting up to the PL84-99 standard at which point the issue of FEMA monies would go away because the districts would be under the Corps jurisdiction.

Rob discussed local cost share and proposed funding provisions on pages 10-5 and 10-6 of the LTLPP report.

Rob discussed the proposed federal budget of \$95 million for CALFED of which \$75 million would be designated for the Environmental Restoration Program Plan (ERPP) and the other \$20 million for all other CALFED actions (including the Levee and Channel Technical Team). It was noted that \$20 million is inadequate and Lester Snow from CALFED is in Washington, D.C. rallying for another \$100 million.

Curt had a comment from page 10-4 of the report. According to Curt, we should no longer be talking about a \$12 million annual program for Special Projects when the figure is more appropriately \$25 million. Rob is shooting for a \$33 million annual program and Curt can accept a figure higher than \$25 million but not lower.

Tom and Curt discussed the funding for the program and the possible budget revisions that could occur. The budget shows \$2.3 million for Subventions / Special Projects Programs for next fiscal year 1999-2000 and there is already a large shortfall this year under the Subventions Program. Rob had another handout entitled "Levee Actions For Year 2000". Rob discussed the need for a "fact sheet" based on all the different numbers floating around.

Rob discussed the next agenda item dealing with Levee Program Organization and referred to a handout. The handout presented the "existing" levee program organization with sub-units for Delta Levee Maintenance, Special Flood Control Projects, Emergency Response, and CALFED. The second page presented the "proposed" levee program organization with sub-units for Base Level Protection Plan, Special Projects, Emergency Response, and CMARP. Notable changes include the basis levee standard being elevated from HMP to PL84-99 and the CALFED objective of developing a long-term comprehensive plan for the Delta being replaced with a CMARP program for

comprehensive monitoring, assessment, and reporting. Rob summarized by saying that we want to have a "locally directed program".

Rob discussed the next agenda item dealing with Subsidence Issues. It was noted that there was concern at the Lodi CALFED public meeting about the inner-island subsidence issue being put in the CALFED report at the last minute. There was a suggestion involving research by CMARP. Curt discussed existing research for subsidence reversal that is occurring on Twitchell Island and how that could continue in the future.

Gwen Knittweis discussed the next agenda item dealing with the Suisun Marsh Levee Investigation.

Gwen Knittweis discussed the next agenda item dealing with Permit Coordination Efforts. Gwen noted three separate contracts for this effort under a \$500,000 Category III grant. There is a contract with the Delta Protection Commission, a contract with the Department of Fish and Game, and a contract with the Regional Water Quality Control Board.

Gwen and Rob discussed the next agenda item dealing with the North Delta Flood Control investigation. There was a colored handout illustrating proposed North Delta flood control actions for a "Scenario 4", the "CALFED Levee Program", and the "Sacramento County Alternative 11E". The CALFED North Delta flood control investigation originally under the Storage and Conveyance team has been taken over by the Levee and Channel team. The new proposal does not show Canal Ranch and Brack Tract being flooded after all but McCormack Williamson will be flooded for ecosystem benefits. Also, CALFED is trying to find a solution for North Delta Flood Control that doesn't use setback levees.

The last agenda item dealt with Other Issues. Rob discussed DWR Central District's bathymetric work and presented handouts prepared by Howard Mann. The bathymetric proposal is for \$2.2 million to do the work and \$0.5 million annually thereafter to maintain the database. Tom Zuckerman discussed the listing of Steelhead and Splittail fish as endangered species and the consequences it can have on the Levee and Channel team with the "work windows" that go along with this listing.

Rob scheduled the next two meetings of the CALFED Levee and Channel Technical Team for Wednesday March 31, 1999 and Tuesday April 27, 1999 from 9-12.

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